Remarks/Arguments:

With this Response, the applicants amend claim 1 to recite that the core material comprises "a plurality of foamed polyester strands rigidly bound to one another with substantially no inter-strand voids between the strands." Support for this amendment can be found in the specification, more particularly, at page 17, lines 10-12. No new matter has been added.

I. The Office Action Rejections

A. Claims 1-3, 5, 6, and 9 stand rejected in the Office Action as anticipated under 35 U.S.C. §102(b) by Tusim (U.S. Patent No. 6,213,540).

B. Claim 4 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Tusim in view of Crane (U.S. Patent No. 5,833,782). The rejection states that Tusim fails to disclose a skin comprising glass fibers. Crane is cited as disclosing a skin of fiberglass reinforced fibers. The motivation to add the fibers in Crane to the skin in Tusim, as asserted in the Office Action, is to provide the additional rigidity to the foam core and enhance energy adsorption.

C. Claims 7 and 8 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Tusim in view of Park (U.S. Patent No. 5,475,037). The rejection states that Tusim fails to disclose that the polyester foam core is polyethylene terephthalate (PET). Park is cited as disclosing PET. The Office Action asserts that the motivation to substitute PET of Park for the material in Tusim is that PET is a typical form of polyester.

D. Claims 1-5, 7, and 8 stand rejected under 35 U.S.C. §103(a) as unpatentable over Mason et al. (U.S. Patent No. 6,197,233) in view of Grinshpun et al. (U.S. Patent No. 6,844,055) as evidenced by Chen et al. (U.S. Patent No. 6,165,308). Mason is cited as teaching a polystyrene foamed product with no inter-strand voids. Mason does not teach that the foamed product is polyester. Grinshpun is cited as teaching a combination of polyester and polystyrene. The asserted motivation to add polyester to polystyrene is "because such is the intended use of the product."

The Office Action states that Mason does not teach a composite material having the foam product bonded to one or more structural skins, but Grinshpun is cited as teaching a strand board bonded to a surface portion of foamed strands. The Office Action further asserts that the motivation to combine Grinshpun with Mason is a desire to provide dimensional stability and strength.

E. Claim 6 stands rejected under 35 U.S.C. §103(a) as unpatentable over Mason in view of Grinshpun as evidenced by Chen and Tusim. Mason fails to disclose the structural skin

adhered with a resin to the foamable structure. Tusim is cited as disclosing laminated, separate skin structures that are non-foamed layers. The Office Action asserts that Tusim broadly discloses structural skins laminated to a foam core with a thermosetting adhesive. The motivation to use the adhesive in Tusim in combination with Mason is asserted to be the "desire to provide improved adhesion strength between them."

II. The Applicants' Response

The applicant's remarks appear in the order of the rejections repeated in Section I herein.

A. Claim 1 has been amended to recite that the core material comprises "a plurality of foamed polyester strands rigidly bound to one another with substantially no inter-strand voids between the strands." The applicants submit that Tusim does not disclose a foamed material where the strands are rigidly bound together with substantially no inter-strand voids. In fact, applicants read Tusim as teaching coalesced strand foamed material designed to have voids. Col. 7, lines 26-29. Tusim teaches that a multi-orifice die can be made to produce inter-strand voids by blocking off some of the orifices. Col. 7, lines 34-39. The material designed to have voids is taught to be more energy absorbing, and is asserted to be advantageously employed in certain applications that require manipulation of bulk density, softness, and increased air flow. Thus, the applicants read Tusim as teaching away from a material having no inter-strand voids in favor of foams manufactured to specifically have voids. For at least this reason, the applicants submit that Tusim does not teach each and every limitation of the claimed invention. Reconsideration of the rejection is respectfully requested.

B. Claim 4 depends from claim 1 and is therefore allowable for at least the same reason that claim 1 is allowable. Furthermore, Crane is cited as teaching a structural skin, and it does not teach a core material having substantially no inter-strand voids. Therefore, dependent claim 4, like claim 1 from which it depends, is not rendered obvious by the combination of Tusim and Crane.

C. Claims 7 and 8 depend from claim 1 and are therefore allowable for at least the same reason that claim 1 is allowable. Furthermore, Park is cited as disclosing PET, and it also does not teach a core material having substantially no inter-strand voids. Therefore, claims 7 and 8, like claim 1 from which they depend, are not rendered obvious by the combination of Tusim and Park.

D. MPEP §2143 provides that to establish a *prima facie* case of obviousness, three basic criteria must be met: 1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art,

to modify the reference or to combine reference teachings; 2) there must be a reasonable expectation of success; and 3) the prior art reference (or references when combined) must teach or suggest all the claim limitations. To support the motivation to combine or modify the references, the Examiner must present a convincing line of reasoning supporting the rejection. *See Ex parte Clapp*, 227 USPQ 972 (Bd. Pat. App. & Inter. 1985). The mere fact that references can be combined or modified is not sufficient motivation to reject the claims as obvious unless the prior art suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

Here, the applicants find no teaching or suggestion in Mason or Grinshpun that one can always simply substitute a combination of polyester and polystyrene in any process or product that made use of polystyrene. Mason is directed to producing multistrand or coalesced foams with alkylene aromatic compounds, particularly styrene compounds. No mention of polyester is made in Mason. Grinshpun mentions that *combinations* of polystyrene and polyester compounds are a suitable alternative to the use of just polystyrene for use in Grinshpun. The applicants submit, however, that to take this teaching and conclude that polyester compounds can be simply freely added to styrene compounds in any product or process is an untenably overbroad reading of Grinshpun.

If the Examiner maintains such a conclusion, the applicants request that the Examiner take Official Notice that polyester compounds can be freely substituted for styrene compounds in all foamable processes. Absent this, the applicants submit that the Examiner has failed to set forth a *prima facie* case for obviousness by not providing proper motivation for one skilled in the art to substitute the polyester of Grinshpun for the polystyrene of Mason. The applicants respectfully request reconsideration of this rejection.

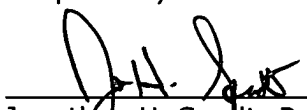
E. Claim 6 depends from claim 1 and is therefore allowable for at least the same reasons that claim 1 is allowable.

III. Conclusion

The applicants submit the pending claims are not anticipated by Tusim because Tusim does not disclose, and indeed teaches away from, extruding a coalesced polymer material with substantially no interstrand voids. The pending claims are also nonobvious in view of the cited references as the cited combination of references fails to disclose each and every feature of the claimed invention. Moreover, the Examiner fails to set forth a *prima facie* case for obviousness.

A notice of allowance is respectfully requested.

Respectfully submitted,



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